

**WHAT IS CLAIMED IS:**

1. A method of enabling channel scanning in a wireless station, said method comprising:

receiving from an access point data related to a possibility of domain change; and  
selecting a channel scanning method based upon said data.

2. The method of claim 1, wherein said data indicates whether there is a possibility of domain change.

3. The method of claim 1, wherein said data is based on geographic information of the access point.

4. The method of claim 1, wherein said data is based on proximity information of the access point related to a predetermined point.

5. The method of claim 1, wherein said data is based on maximum coverage area and geographical information of the access point.

6. The method of claim 1, wherein said selecting a channel scanning method comprises selecting a safe channel scanning method if there is a possibility of domain change.

7. The method of claim 1, wherein said selecting a channel scanning method comprises selecting an active channel scanning method if there is no possibility of domain change.

8. A method of enabling channel scanning in a wireless station, said method comprising:

establishing communication between said wireless station and an access point;

receiving information in a lifetime field related to a period of time during which domain information could be used after the communication between said wireless station and said access point has been lost; and

determining whether an elapsed period of time after the communication between said wireless station and said access point has been lost is greater than the period of time in said lifetime field.

9. The method of claim 8, wherein said receiving information comprises obtaining the shortest distance from a domain boundary to an edge of the coverage area of the access point.

10. The method of claim 8, further comprising obtaining a speed of said wireless station.

11. The method of claim 8, further comprising selecting a safe channel scanning method if the elapsed period of time is greater than the period of time in said lifetime field.

12. The method of claim 8, further comprising determining whether there is a possibility of domain change.

13. The method of claim 12, further comprising performing safe channel scanning if there is a possibility of domain change.

14. A method of enabling channel scanning in a wireless station, said method comprising:

determining if a channel of a plurality of available channels is a domain-independent channel; and

actively scanning the domain- independent channel.

15. The method of claim 14, further comprising receiving a pre-alert field.

16. The method of claim 14, further comprising performing an active channel scan if valid domain information is identified during scan of the domain-independent channel.

17. A wireless station adapted to scan for channels in a wireless communication network, said wireless station comprising:

a receiver for receiving a data block, wherein said data block comprises a domain change pre-alert field;

a controller coupled to said receiver, said controller selecting a channel scanning method based upon data in said domain change pre-alert field; and

a transmitter coupled to said controller.

18. The wireless station of claim 17, wherein said domain change pre-alert field comprises a bit indicating whether there is a possibility of domain change.

19. The wireless station of claim 18, wherein the transmitter transmits a probe frame if said domain change pre-alert field is not set.

20. The wireless station of claim 17, wherein said domain change pre-alert field is sent in a beacon frame.

21. The wireless station of claim 17, wherein said domain change pre-alert field is sent in a probe response frame.

22. A wireless station adapted to scan for channels in a wireless communication network, said wireless station comprising:

a receiver for receiving a data block, wherein said data block comprises a lifetime field;

a controller coupled to said receiver, said controller selecting a channel scanning method based upon data in said lifetime field; and

a transmitter coupled to said controller.

23. The wireless station of claim 22, wherein the controller selects a safe channel scan method if said lifetime field has expired.

24. The wireless station of claim 22, wherein said lifetime field is based upon a maximum handover time.

25. The wireless station of claim 22, wherein said lifetime field is based on a shortest distance from a domain boundary to an edge of the coverage area of an access point.

26. The wireless station of claim 22, wherein said lifetime field is based upon a maximum speed of said wireless station.

27. A telecommunication system comprising:

a network comprising at least one server;

a wireless station comprising:

a receiver for receiving a data block, wherein said data block comprises a domain change pre-alert field;

a controller coupled to said receiver, said controller selecting a channel scanning method based upon data in said domain change pre-alert field; and

a transmitter coupled to said controller; and

an access point providing said data block to said wireless station.

28. The telecommunication system of claim 27, wherein the transmitter transmits a probe frame if said domain change pre-alert field is not set.

29. The telecommunication system of claim 27, wherein said data in said domain change pre-alert field is based on geographic information of the access point.

30. The telecommunication system of claim 27, wherein said data in said domain change pre-alert field is based on information related to proximity of the access point to a predetermined point.

31. The telecommunication system of claim 27, wherein said data in said domain change pre-alert field is based on a maximum coverage area and geographical information of the access point.

32. A telecommunication system comprising:

a network comprising at least one server;

a wireless station comprising:

    a receiver for receiving a data block, wherein said data block comprises a lifetime field;

    a controller coupled to said receiver, said controller selecting a channel scanning method based upon data in said lifetime field; and

    a transmitter coupled to said controller; and

an access point providing said data block to said wireless station.

33. The telecommunication system of claim 32, wherein said lifetime field is based upon a maximum handover time.

34. The telecommunication system of claim 32, wherein said lifetime field is based upon the shortest distance from a domain boundary to an edge of a coverage area of the access point.

35. The telecommunication system of claim 32, wherein said lifetime field is based upon a maximum speed of said wireless station.

36. The telecommunication system of claim 32, further comprising performing a safe channel scan if an elapsed period of time after the communication between said wireless station and said access point has been lost is greater than a period of time in said lifetime field.

37. A telecommunication system comprising:

a network comprising at least one server;

a wireless station comprising:

    a receiver for receiving a data block, wherein said data block comprises fields for information about a domain-independent channel;

    a controller coupled to said receiver; and

a transmitter coupled to said controller; and  
an access point providing said data block to said wireless station.

38. The telecommunication system of claim 37, wherein the wireless station actively scans the domain independent channel.

39. The telecommunication system of claim 37, wherein the wireless station performs an active channel scan if valid domain information is identified during a scan of the domain-independent channel.